

#2

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:42

Input Set : N:\CrF3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

SEQUENCE LISTING

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:42

Input Set : N:\Crf3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

71 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
 73 ATG GAG ACA GAC ACA ATC CTG CTA TGG GTG CTG CTG CTC TGG GTT CCA 48
 74 Met Glu Thr Asp Thr Ile Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 75 1 5 10 15
 77 GGC TCC ACT GGT GAC ATT GTG CTG ACC CAA TCT CCA GCT TCT TTG GCT 96
 78 Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala
 79 20 25 30
 81 GTG TCT CTA GGG CAG AGG GCC ACC ATC TCC TGC AAG GCC AGC CAA AGT 144
 82 Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser
 83 35 40 45
 85 GTT GAT TAT GAT GGT GAT AGT TAT ATG AAC TGG TAC CAA CAG AAA CCA 192
 86 Val Asp Tyr Asp Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro
 87 50 55 60
 89 GGA CAG CCA CCC AAA CTC CTC ATC TAT GCT GCA TCC AAT CTA GAA TCT 240
 90 Gly Gln Pro Pro Lys Leu Leu Ile Tyr Ala Ala Ser Asn Leu Glu Ser
 91 65 70 75 80
 93 GGG ATC CCA GCC AGG TTT AGT GGC AGT GGG TCT GGG ACA GAC TTC ACC 288
 94 Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 95 85 90 95
 97 CTC AAC ATC CAT CCT GTG GAG GAG GAT GCT GCA ACC TAT TAC TGT 336
 98 Leu Asn Ile His Pro Val Glu Glu Asp Ala Ala Thr Tyr Tyr Cys
 99 100 105 110
 101 CAG CAA AGT AAT GAG GAT CCT CCG ACG TTC GGT GGA GGC ACC AAG CTG 384
 102 Gln Gln Ser Asn Glu Asp Pro Pro Thr Phe Gly Gly Thr Lys Leu
 103 115 120 125
 105 GAA ATC AAA CGG 396
 106 Glu Ile Lys Arg
 107 130

110 (2) INFORMATION FOR SEQ ID NO: 2:

112 (i) SEQUENCE CHARACTERISTICS:
 113 (A) LENGTH: 132 amino acids
 114 (B) TYPE: amino acid
 115 (D) TOPOLOGY: linear

117 (ii) MOLECULE TYPE: protein

119 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

121 Met Glu Thr Asp Thr Ile Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 122 1 5 10 15
 124 Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala
 125 20 25 30
 127 Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser
 128 35 40 45
 130 Val Asp Tyr Asp Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro
 131 50 55 60
 134 Gly Gln Pro Pro Lys Leu Leu Ile Tyr Ala Ala Ser Asn Leu Glu Ser
 135 65 70 75 80
 137 Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 138 85 90 95
 140 Leu Asn Ile His Pro Val Glu Glu Asp Ala Ala Thr Tyr Tyr Cys
 141 100 105 110

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:42

Input Set : N:\Crf3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

143 Gln Gln Ser Asn Glu Asp Pro Pro Thr Phe Gly Gly Thr Lys Leu
144 115 120 125
146 Glu Ile Lys Arg
147 130
150 (2) INFORMATION FOR SEQ ID NO: 3:
152 (i) SEQUENCE CHARACTERISTICS:
153 (A) LENGTH: 483 base pairs
154 (B) TYPE: nucleic acid
155 (C) STRANDEDNESS: double
156 (D) TOPOLOGY: unknown
158 (ii) MOLECULE TYPE: cDNA
160 (ix) FEATURE:
161 (A) NAME/KEY: CDS
162 (B) LOCATION: 64..483
164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
166 GAATTCGCGG CCGCTATGCA GGGACAATCA GCAGCAGCAA TGAGGAAGTA AGCCTGTGCA 60
168 GAT ATG AAC AGG CTT ACT TCC TCA TTG CTG CTG ATT GTC CCT GCA 108
169 Met Asn Arg Leu Thr Ser Ser Leu Leu Leu Ile Val Pro Ala
170 1 5 10 15
172 TAT GTC CTG TCC CAG GTT ACT CTG AAA GAG TCT GGC CCT GGG ATA TTG 156
173 Tyr Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu
174 20 25 30
176 CAG CCC TCC CAG ACC CTC AGT CTG ACT TGT TCT TTC TCT GGG TTT TCA 204
177 Gln Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser
178 35 40 45
180 CTG AGC ACT TCT GGT ATG GGT GTG AGC TGG ATT CGT CAG CCT TCA GGA 252
181 Leu Ser Thr Ser Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly
182 50 55 60
184 AAG GGT CTG GAG TGG CTG GCA CAC ATT TAC TGG GAT GAT GAC AAG CGC 300
185 Lys Gly Leu Glu Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg
186 65 70 75
188 TAT AAC CCA TCC CTG AAG AGC CGG CTC ACA ATC TCC AAG GAT ACC TCC 348
189 Tyr Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser
190 80 85 90 95
192 AGC AAC CAG GTA TTC CTC AAG ATC ACC AGT GTG GAC ACT GCA GAT ACT 396
193 Ser Asn Gln Val Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr
194 100 105 110
197 GCC ACA TAC TAC TGT GCT CGA AGA GAG ACT GTG TTC TAC TGG TAC TTC 444
198 Ala Thr Tyr Tyr Cys Ala Arg Arg Glu Thr Val Phe Tyr Trp Tyr Phe
199 115 120 125
201 GAT GTC TGG GGC GCA GGG ACC ACG GTC ACC GTC TCC TCA 483
202 Asp Val Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
203 130 135 140
206 (2) INFORMATION FOR SEQ ID NO: 4:
208 (i) SEQUENCE CHARACTERISTICS:
209 (A) LENGTH: 140 amino acids
210 (B) TYPE: amino acid
211 (D) TOPOLOGY: linear
213 (ii) MOLECULE TYPE: protein

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:42

Input Set : N:\Crf3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

215 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
 217 Met Asn Arg Leu Thr Ser Ser Leu Leu Leu Ile Val Pro Ala Tyr
 1 5 10 15
 220 Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln
 20 25 30
 223 Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
 35 40 45
 226 Ser Thr Ser Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys
 50 55 60
 229 Gly Leu Glu Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr
 65 70 75 80
 232 Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser
 85 90 95
 235 Asn Gln Val Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala
 100 105 110
 238 Thr Tyr Tyr Cys Ala Arg Arg Glu Thr Val Phe Tyr Trp Tyr Phe Asp
 115 120 125
 241 Val Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser
 130 135 140

245 (2) INFORMATION FOR SEQ ID NO: 5:

247 (i) SEQUENCE CHARACTERISTICS:
 248 (A) LENGTH: 60 base pairs
 249 (B) TYPE: nucleic acid
 250 (C) STRANDEDNESS: double
 251 (D) TOPOLOGY: unknown

253 (ii) MOLECULE TYPE: cDNA

255 (ix) FEATURE:

256 (A) NAME/KEY: CDS
 257 (B) LOCATION: 1..60

260 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

262 ATG GTG TTG CAG ACC CAG GTC TTC ATT TCT CTG TTG CTC TGG ATC TCT
 263 Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
 1 5 10 15

48

264 GGT GCC TAC GGG

60

265 Gly Ala Tyr Gly

266 20

271 (2) INFORMATION FOR SEQ ID NO: 6:

273 (i) SEQUENCE CHARACTERISTICS:
 274 (A) LENGTH: 20 amino acids
 275 (B) TYPE: amino acid
 276 (D) TOPOLOGY: linear

278 (ii) MOLECULE TYPE: protein

280 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

282 Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
 1 5 10 15

283 Gly Ala Tyr Gly

284 20

289 (2) INFORMATION FOR SEQ ID NO: 7:

291 (i) SEQUENCE CHARACTERISTICS:

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:42

Input Set : N:\Crf3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

292	(A) LENGTH: 57 base pairs		
293	(B) TYPE: nucleic acid		
294	(C) STRANDEDNESS: double		
295	(D) TOPOLOGY: unknown		
297	(ii) MOLECULE TYPE: cDNA		
299	(ix) FEATURE:		
300	(A) NAME/KEY: CDS		
301	(B) LOCATION: 1..57		
303	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:		
305	ATG GGA TGG AGC TGT ATC ATC CTC TTC TTG GTA GCA ACA GCT ACA GGT		48
306	Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly		
307	1 5 10 15		
309	GTC CAC TCC		57
310	Val His Ser		
314	(2) INFORMATION FOR SEQ ID NO: 8:		
316	(i) SEQUENCE CHARACTERISTICS:		
317	(A) LENGTH: 19 amino acids		
318	(B) TYPE: amino acid		
319	(D) TOPOLOGY: linear		
321	(ii) MOLECULE TYPE: protein		
323	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:		
325	Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly		
326	1 5 10 15		
328	Val His Ser		
331	(2) INFORMATION FOR SEQ ID NO: 9:		
333	(i) SEQUENCE CHARACTERISTICS:		
334	(A) LENGTH: 423 base pairs		
335	(B) TYPE: nucleic acid		
336	(C) STRANDEDNESS: double		
337	(D) TOPOLOGY: unknown		
339	(ii) MOLECULE TYPE: cDNA		
341	(ix) FEATURE:		
342	(A) NAME/KEY: CDS		
343	(B) LOCATION: 1..423		
345	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:		
347	ATG GTG TTG CAG ACC CAG GTC ATT TCT CTG TTG CTC TGG ATC TCT		48
348	Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser		
349	1 5 10 15		
351	GGT GCC TAC GGG CAG GTT ACC CTG AAA GAG TCT GGC CCT GGG ATA TTG		96
352	Gly Ala Tyr Gly Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu		
353	20 25 30		
355	CAG CCC TCC CAG ACC CTC AGT CTG ACT TGT TCT TTC TCT GGG TTT TCA		144
356	Gln Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser		
357	35 40 45		
359	CTG AGC ACT TCT GGT ATG GGT GTG AGC TGG ATT CGT CAG CCT TCA GGA		192
360	Leu Ser Thr Ser Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly		
361	50 55 60		
363	AAG GGT CTG GAG TGG CTG GCA CAC ATT TAC TGG GAT GAT GAC AAG CGC		240
364	Lys Gly Leu Glu Trp Leu Ala His Ile Tyr Trp Asp Asp Lys Arg		

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/879,461

DATE: 12/26/2001
TIME: 16:22:43

Input Set : N:\Crf3\RULE60\09879461.txt
Output Set: N:\CRF3\12262001\I879461.raw

L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]